

# KNX/EIB LED Driver 4 channels

KNX/EIB LED driver is designed to control constant voltage LED lights in combination with other KNX devices.

Features:

- 4 channel (RGB+Amber) dimming
- High adjustable PWM frequency (up to 1kHz) provides flicker-free brightness control
- Recognition of the last state of each channel
- Feedback of the switching state and brightness value
- Integrated circuit and reverse polarity protection with automatic restart after error elimination
- 15 various preprogrammed scenes with defined brightness values, more available through Logic Machine
- Scene player with transition time
- SOFT on, SOFT off timer



## ENG - Data sheet

Issue date 11.10.2013

### Application

Lighting

### Types of product

LED driver 4 channels                      LED4

### Standards and norms compliance

EMC:	EN61000-6-1 EN61000-6-3
PCT	Certificate

## Technical data:

Power supply:	29V DC from KNX/EIB bus	
Power consumption:	0.25W	
Interface:	KNX	1
Channels:	Count	4
	Max current to control	5 A / channel
	Output type	PWM
	PWM frequency	50 Hz – 1 kHz
Connections:	KNX	Bus Connection Terminal 0.8mm <sup>2</sup>
	Outputs	Clamp, 1.5mm <sup>2</sup>
Operating elements	LED	1 - Activity
Enclosure:	Material:	Polyamide
	Color:	Gray
	Dimensions:	36(W)x91(H)x56(L) mm
Usage temperature:	0C ... +45C	
Storage temperature:	-15C ... +55C	
Weight:	50g	
Warranty:	2 years	
Relative Humidity:	10...95 % without condensation	



### **Caution Security advice**

The installation and assembly of electrical equipment may only be performed by skilled electrician. The devices must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with application that can result danger of people, animals or real value

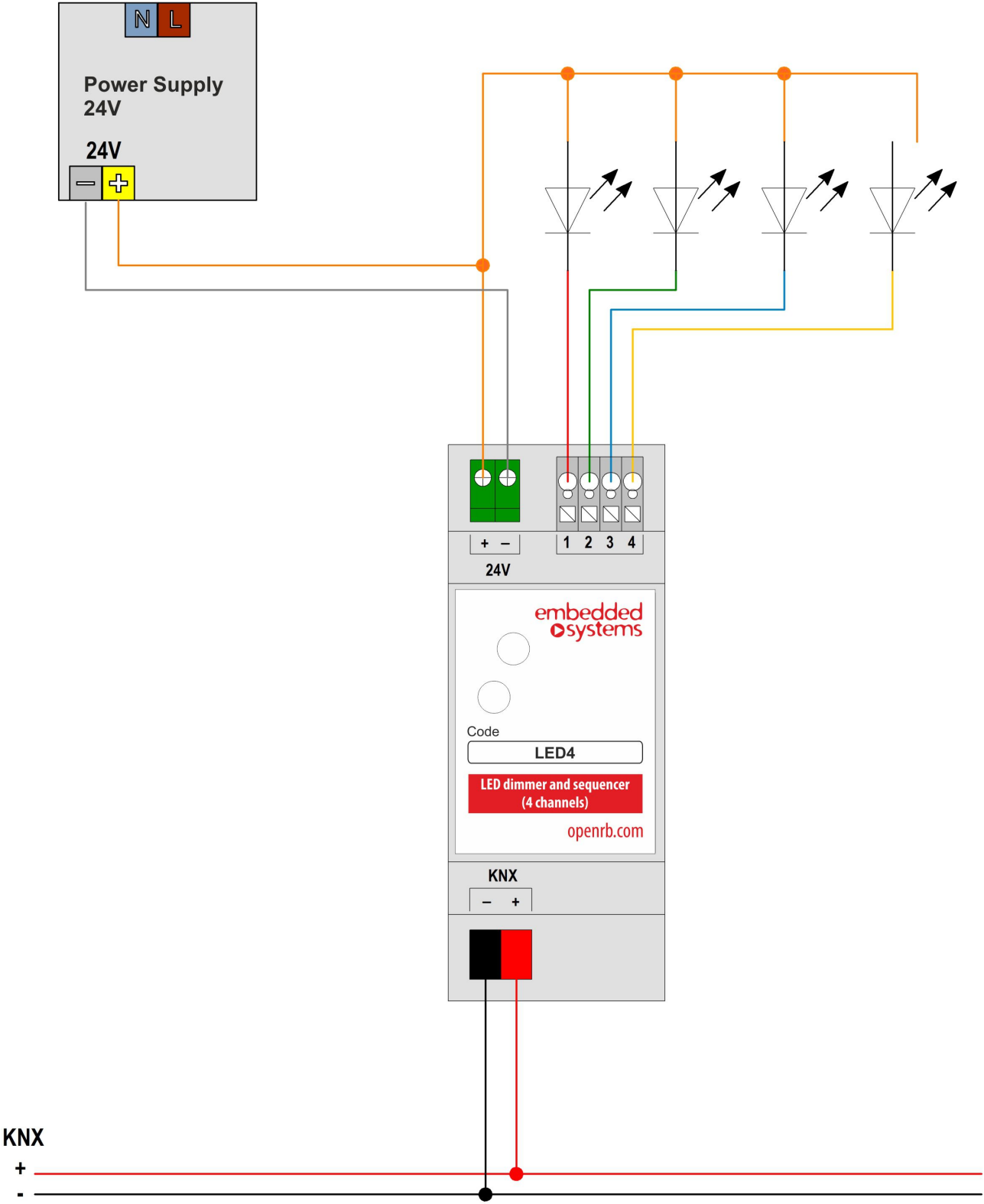
## Mounting advice

The devices are supplied in operational status. The cables connections included can be clamped to the housing if required.

## Electrical connection

The devices are constructed for the operation of protective low voltage (SELV). Grounding of device is not needed. When switching the power supply on or off, power surges must be avoided.

# 1. Connection diagram



## **2. LED lamp requirements**

LED lamps should be contact voltage 12 V or 24 V. If there is a need to dim LED strip or LED lamp with more power than 5A/channel, please use necessary count of LED amplifiers.

## **3. Default settings**

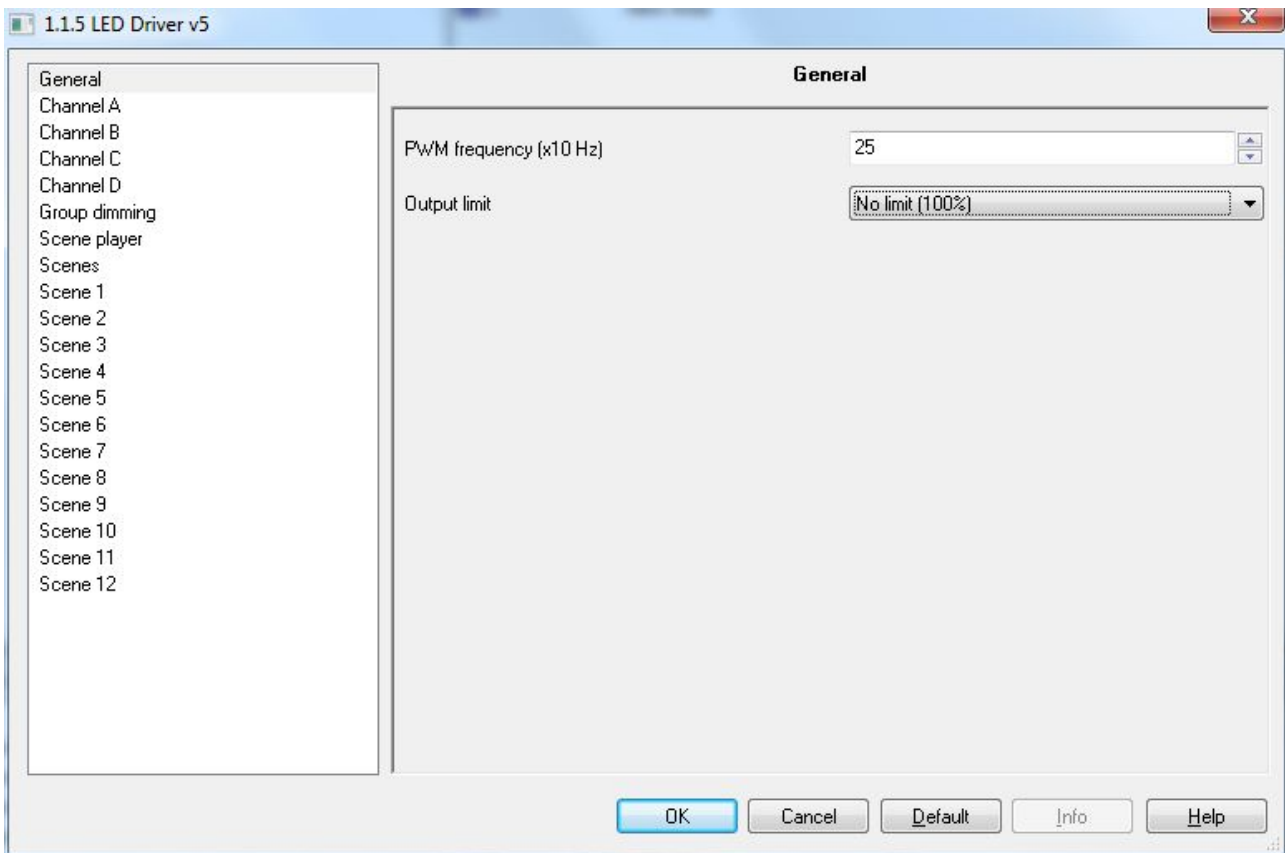
To reset the device to default settings, press and hold programming button for more than 10 seconds. Programming LED will blink several times after releasing the programming button. The device will restart automatically after the reset is complete.

## **4. Default state of the device**

Factory-new devices have the physical address 1.1.255, no group addresses.

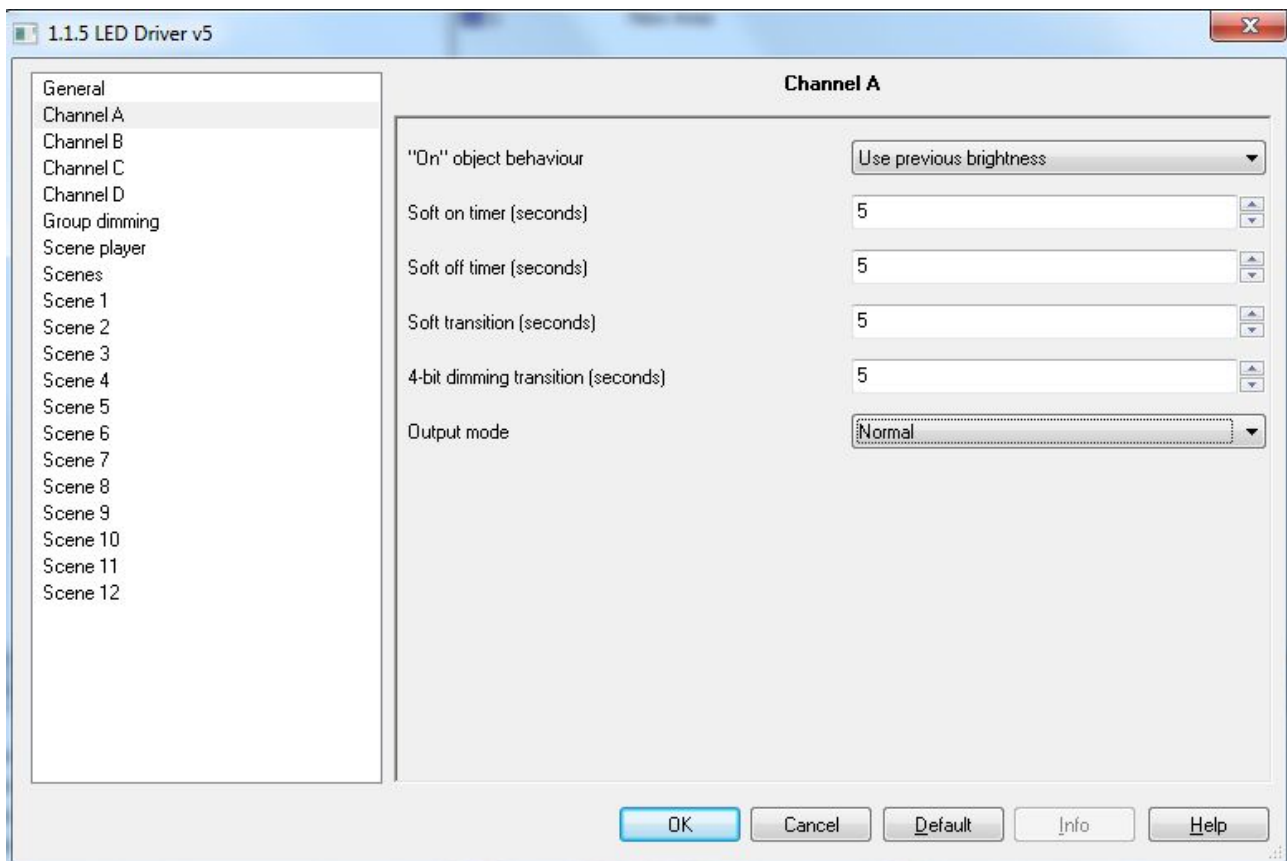
## 5. ETS configuration

### 5.1. General settings



- **PWM frequency (x10Hz) [5..100]** – PWM frequency
- **Output limit** – output power limit

## 5.2. Channel configuration

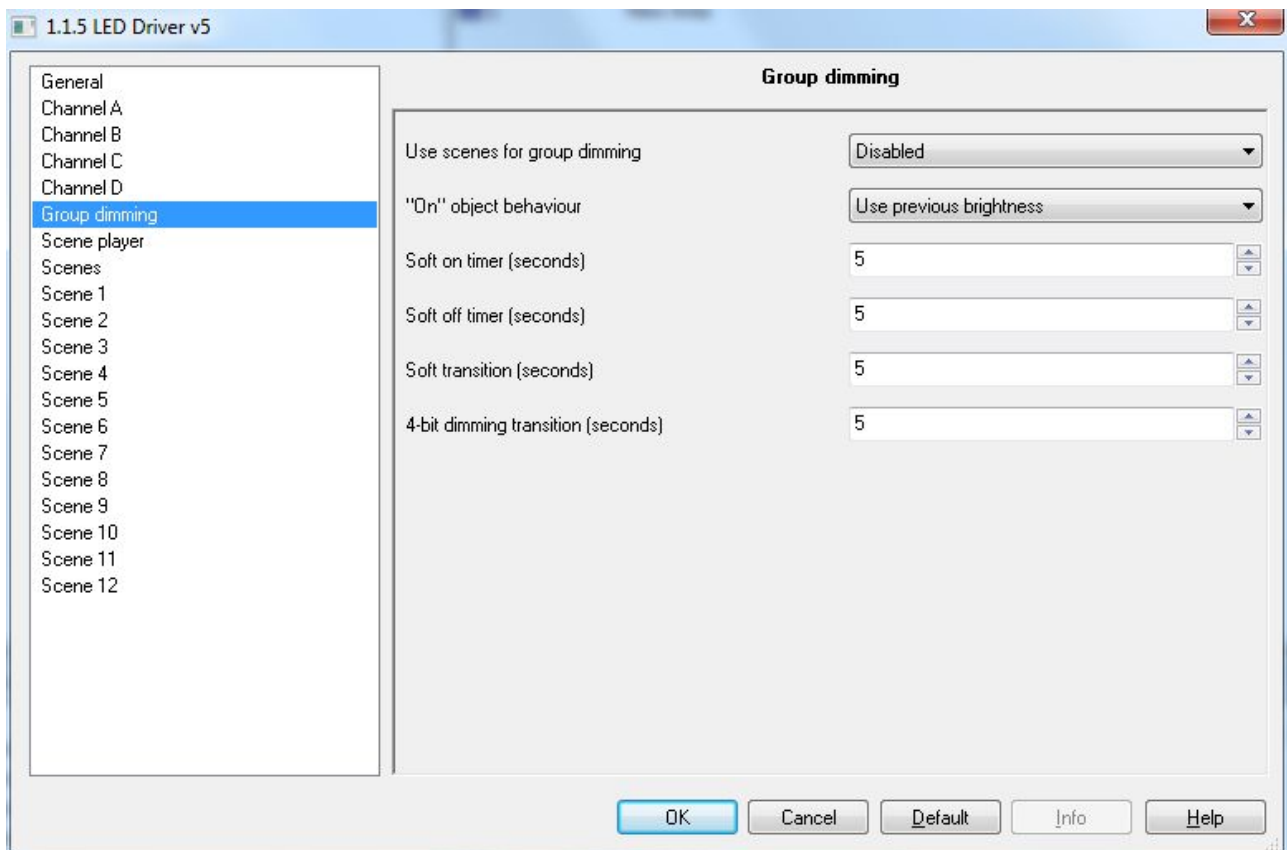


- **“On” object behavior** – object behavior on “on” state – use previous or preset brightness
- **Soft on timer (seconds) [0..15]** – soft start timer
- **Soft off timer (seconds) [0..15]** – soft stop timer
- **Soft transition (seconds) [0..15]** – soft transition timer if used with scene player
- **4-bit dimming transition (seconds)** – 4-bit dimming transition time
- **Output mode [Normal; Inverted]** – type of output

- **Group dimming**

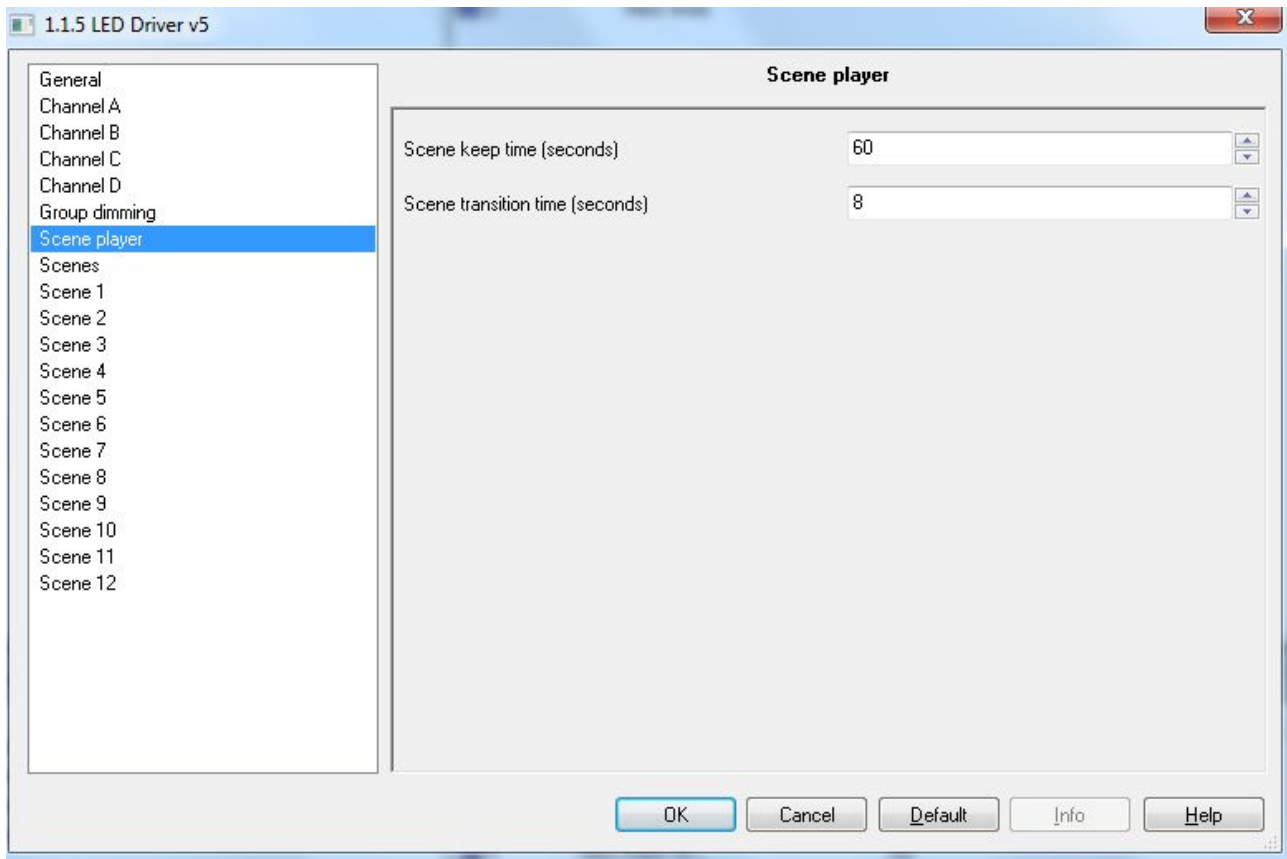
In case you want to control all four channels at the same time, use group dimming feature.

First, what has to be done is set max brightness values for each of the channels through objects Channel A - In/Out: Brightness, Channel B - In/Out: Brightness, Channel C - In/Out: Brightness, Channel D - In/Out: Brightness Then 1 should be sent to group address of Group dimming - In: Store values (maximum) object which will store max values and do dimming later proportionally these values.



- **Use scenes for group dimming** – enable or disable scene usage for group dimming
- **“On” object behavior** – object behavior on “on” state – use previous or preset brightness
- **Brightness preset [1..100]** – preset brightness level
- **Soft on timer (seconds) [0..15]** – soft start timer
- **Soft off timer (seconds) [0..15]** – soft stop timer
- **Soft transition (seconds) [0..15]** – soft transition timer if used with scene player
- **4-bit dimming transition (seconds)** – 4-bit dimming transition time

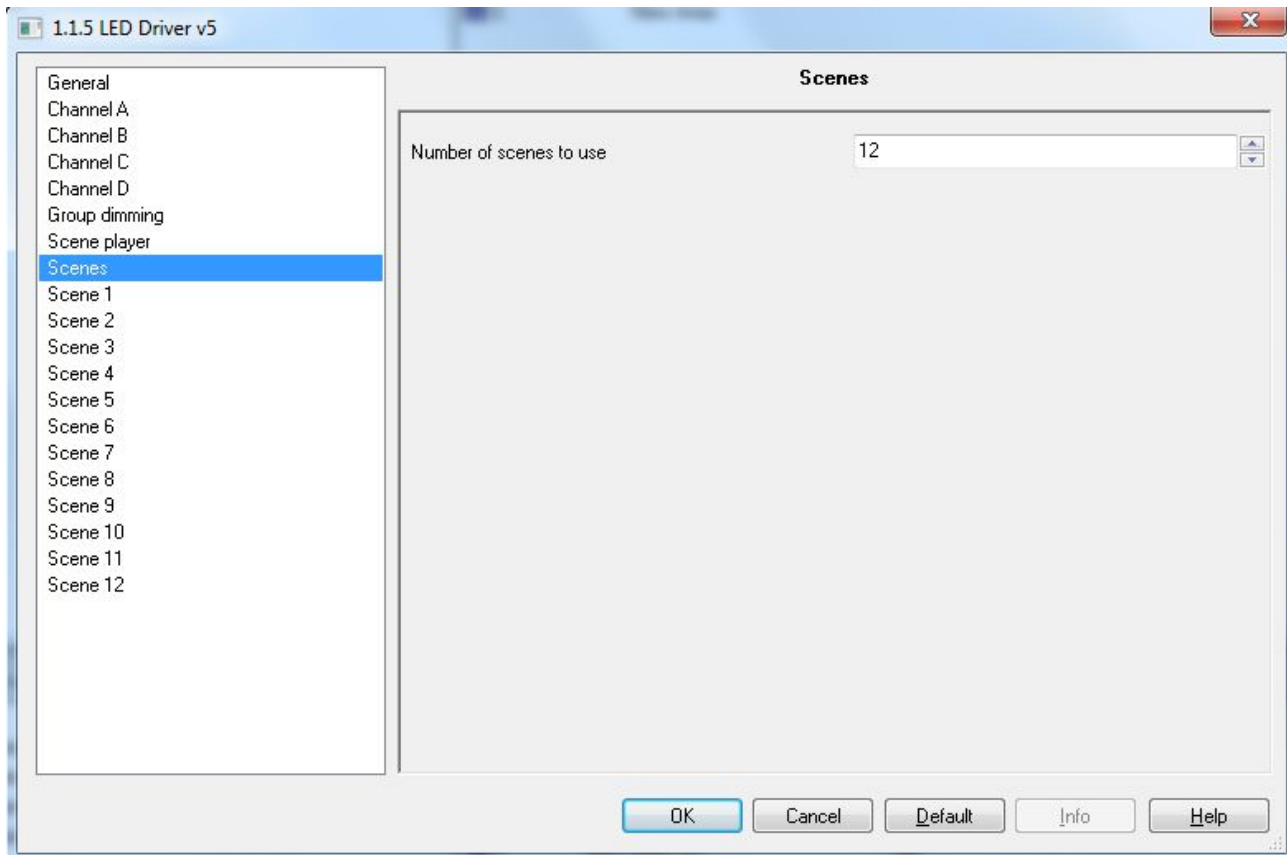
### 5.3. Scene player



- **Scene keep time (seconds) [0..3600]** – time to play the scene
- **Scene transition time (seconds) [0..16]** – transition time between scenes

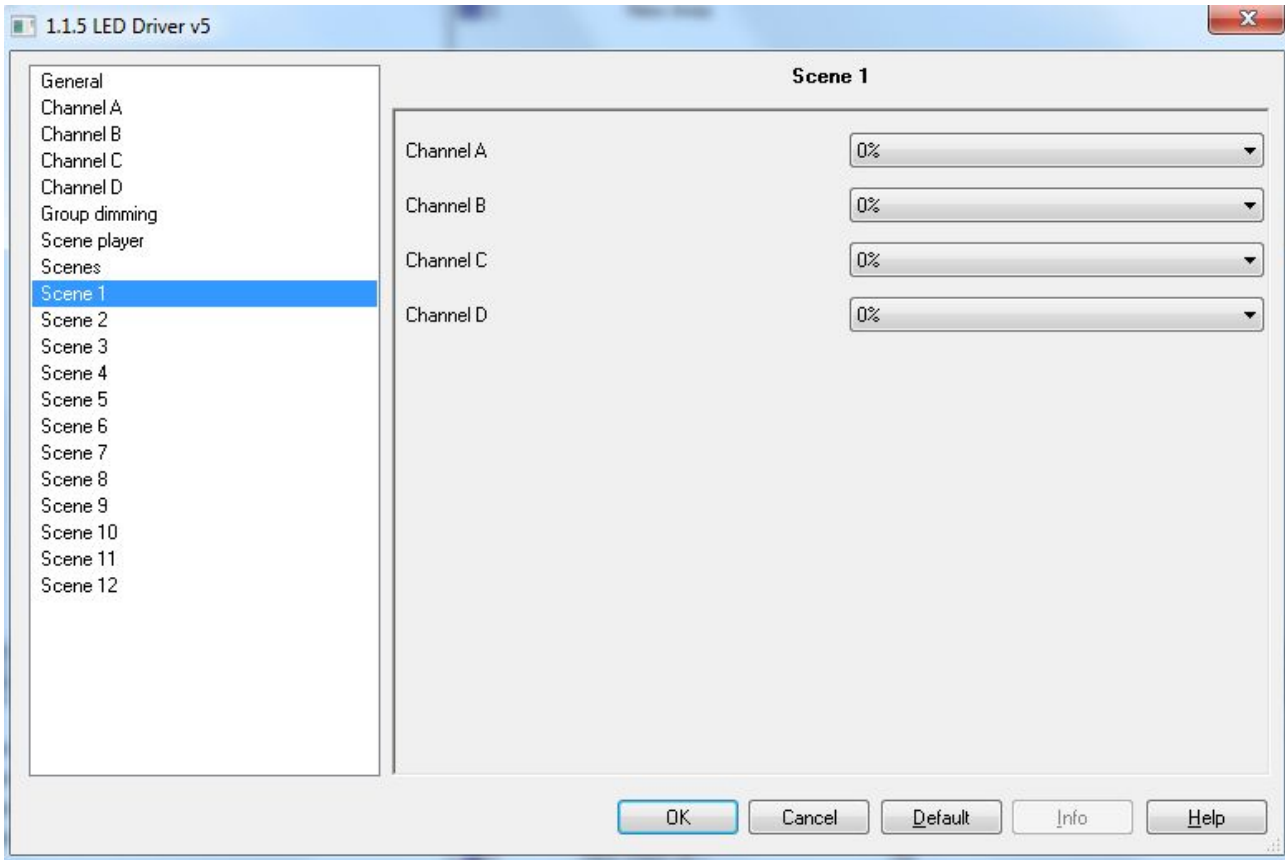


## 5.4. Number of scenes



- **Number of scenes to use [1..15]** – number of scenes

## 5.5. Scene settings



- **Channel A [0..100%]** – channel A brightness level
- **Channel B [0..100%]** – channel B brightness level
- **Channel C [0..100%]** – channel C brightness level
- **Channel D [0..100%]** – channel D brightness level

## 6. Objects

No	Object	Name	Type	Priority	Read	Write	Transmit
0	Channel A	In: On/off	1.* Boolean (1.001 switch)	Low	-	W	T
1	Channel B	In: On/off	1.* Boolean (1.001 switch)	Low	-	W	-
2	Channel C	In: On/off	1.* Boolean (1.001 switch)	Low	-	W	-
3	Channel D	In: On/off	1.* Boolean (1.001 switch)	Low	-	W	-
4	Group dimming	In: On/off	1.* Boolean (1.001 switch)	Low	-	W	-
5	Channel A	In: Dim step	3.* 3-Bit Controlled (3.007 dim step)	Low	-	W	-
6	Channel B	In: Dim step	3.* 3-Bit Controlled (3.007 dim step)	Low	-	W	-
7	Channel C	In: Dim step	3.* 3-Bit Controlled (3.007 dim step)	Low	-	W	-
8	Channel D	In: Dim step	3.* 3-Bit Controlled (3.007 dim step)	Low	-	W	-
9	Group dimming	In: Dim step	3.* 3-Bit Controlled (3.007 dim step)	Low	-	W	-

			dim step)				
10	Channel A	In: Brightness	5.* 1-Byte Unsigned (5.001 scaling)	Low	-	W	-
11	Channel B	In: Brightness	5.* 1-Byte Unsigned (5.001 scaling)	Low	-	W	-
12	Channel C	In: Brightness	5.* 1-Byte Unsigned (5.001 scaling)	Low	-	W	-
13	Channel D	In: Brightness	5.* 1-Byte Unsigned (5.001 scaling)	Low	-	W	-
14	Group dimming	In: Brightness	5.* 1-Byte Unsigned (5.001 scaling)	Low	-	W	-
15	Channel A	Out: On/off status	1.* Boolean (1.001 switch)	Low	R	-	T
16	Channel B	Out: On/off status	1.* Boolean (1.001 switch)	Low	R	-	T
17	Channel C	Out: On/off status	1.* Boolean (1.001 switch)	Low	R	-	T
18	Channel D	Out: On/off status	1.* Boolean (1.001 switch)	Low	R	-	T
19	Group dimming	Out: On/off status	1.* Boolean (1.001 switch)	Low	R	-	T
20	Channel A	Out: Brightness status	5.* 1-Byte Unsigned (5.001 scaling)	Low	R	-	T
21	Channel B	Out: Brightness status	5.* 1-Byte Unsigned (5.001 scaling)	Low	R	-	T
22	Channel C	Out: Brightness status	5.* 1-Byte Unsigned (5.001 scaling)	Low	R	-	T
23	Channel D	Out: Brightness status	5.* 1-Byte Unsigned (5.001 scaling)	Low	R	-	T
24	Group dimming	Out: Brightness status	5.* 1-Byte Unsigned (5.001 scaling)	Low	R	-	T
25	Scene number	In: Number (1..12)	5.* 1-Byte Unsigned	Low	-	W	-
26	Scene step	In: Up/down	1.* Boolean (1.001 switch)	Low	-	W	-
27	Scene player	In: On/off	1.* Boolean (1.001 switch)	Low	R	W	T
28	Scene player random	In: On/off	1.* Boolean (1.001 switch)	Low	R	W	T
29	Scene player keep time	In: Seconds (0..3600)	7.* 2-Byte Unsigned	Low	R	W	T
30	Scene player transition time	In: Seconds (0..15)	5.* 1-Byte Unsigned	Low	R	W	T
31	Group dimming	In: Store values (maximum)	1.* Boolean (1.001 switch)	Low	-	W	-
32	Scene number A	In: Number (1..12)	5.* 1-Byte Unsigned	Low	R	W	-
33	Scene number B	In: Number (1..12)	5.* 1-Byte Unsigned	Low	R	W	-
34	Scene number C	In: Number (1..12)	5.* 1-Byte Unsigned	Low	R	W	-
35	Scene number D	In: Number (1..12)	5.* 1-Byte Unsigned	Low	R	W	-